

WHAT IS CLAIMED IS:

1 1. A door lock device comprising:

2 a latch placed in a side part of a swing door hinged for
3 swinging in an opening of a building to open and close the
4 opening, said latch being elastically pressed so as to project
5 from the side part of the swing door, and capable of being
6 manually pushed into the swing door;

7 a hook disposed so as to engage with the latch in a cavity
8 formed in a part of a door frame defining the opening of the
9 building and correspond to the latch, said hook being capable
10 of turning between a latch detaining position for detaining
11 the latch and a latch releasing position for releasing the
12 latch;

13 a hook control member provided to move between a hook
14 detaining position for restraining the hook from turning from
15 the latch detaining position and a hook releasing position for
16 permitting the hook to turn to the latch releasing position;

17 an actuator having a rod capable of being advanced for
18 a locking operation and retracted for an unlocking operation;

19 a first member capable of turning between a first
20 position for detaining the hook control member at the hook
21 detaining position and a second position for permitting the
22 hook control member to turn to the hook releasing position,
23 and pressed in a direction from the second position toward the
24 first position;

25 a second member having one end that engages with the first
26 members to detain the first members at the first position, said
27 second member being provided to turn between a first position
28 where the end part thereof detains the first members at the
29 first position and a second position where the end part thereof
30 is separated from the first members to permit the first members
31 to turn to the second position, said second member being pressed
32 in a direction from the second position toward the first
33 position, and provided with an engaging member; and

34 a third member supported for turning adjacent to the
35 second member so as to be turned by the actuator, capable of
36 being turned to a first position by advancing the rod of the
37 actuator and to a second position by retracting the rod of the
38 actuator, said third member being pressed in a direction from
39 the second position toward the first position, and capable of
40 restraining the second member from turning toward the first
41 position by engaging with the engaging member of the second
42 member;

43 wherein the first member has a impact-receiving part that
44 receives impact exerted thereon by the second member when the
45 rod of the actuator is retracted and the second member turns
46 from the first to the second position, whereby the first member
47 can be surely turned toward the second position by the impact
48 exerted on the impact-receiving parts thereof.

1 2. The door lock device according to claim 1, wherein

2 the second member is disposed relative to the first members
3 so that the end part thereof exerts the impact on the im-
4 pact-receiving parts of the first members.

1 3. The door lock device according to claim 1, wherein
2 the impact-receiving parts are projections formed in the first
3 members.

1 4. The door lock device according to claim 1, wherein
2 the second and the third member are supported on a common shaft.

1 5. The door lock device according to claim 1, wherein
2 the engaging member of the second member is a pin.

1 6. The door lock device according to claim 1, wherein
2 the third member is provided with a projection that engages
3 with the engaging member.

1 7. The door lock device according to claim 1, wherein
2 the second and the third member are restrained from turning
3 beyond their first positions by stoppers, respectively.

1 8. The door lock device according to claim 1, wherein
2 the third member is provided with a recess, the rod of the
3 actuator is provided with a pin so as to engage in the recess
4 of the third member.